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THE NOMENCLATORIAL STATUS OF *SPIRANTHES SINENSIS*

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IN 1919, Professor E. D. Merrill, in the *Philippine Journal of Science* 15 (1919) 230, adopted the combination *Spiranthes aristotelia* (Raeusch.) Merrill in place of *Spiranthes sinensis* (Pers.) Ames. Furthermore, in 1935, in the *Transactions of the American Philosophical Society* n.s. 24, pt. 2 (1935) 122, he commented on the validity of this combination. Was he justified in adopting this new combination?

The earliest post-Linnean name applied to this species is *Ophrys spiralis* Georgi Bemerck. *Reise Russ. Reich* 1 (1775) 232, non *Linnaeus*. The specific epithet, however, is not available for two reasons, first because of the earlier *Ophrys spiralis* L. (1753) and second because of the already existing *Spiranthes spiralis* C. Koch (1849).

The second name given to the species is *Aristotelea spiralis* Loureiro *Fl. cochinch.* 2 (1790) 522; ed. Willd. 2 (1793) 638. The generic name is not available because of the earlier *Aristotelia* L'Hérit. (1784) and the specific epithet is not tenable on account of the combination *Spiranthes spiralis* C. Koch (1849).

The third name used was *Epidendrum Aristotelia* Raeuschel *Nomencl. Bot.*, ed. 3 (1797) 265. The status of this combination upon which Professor Merrill based

his combination *Spiranthes aristotelia* seems open to considerable question. As published by Raeuschel it reads:

EPIDENDRUM

Aristotelia. Canto Sinar.

In a footnote the following statement is made: "Hanc [Aërides], et sex praecedentes species Celeb. Loureirus propriis generibus adscripsit: videntur vero omnia ad Linei Epidendra pertinere, hancque ob causam huic generi interim inserere, quam nova et incerta genera proponere malui."

There appear to be two reasons why the combination of Raeuschel must be considered as not in good standing. First, because according to the International Rules (Art. 44 (2)) a species is not validly published unless accompanied "by the citation of a previously and effectively published description of the group under another name;..." That this article is complied with by Raeuschel is, in the writer's opinion, open to grave doubt. No direct citation of previous publication is given and the name-bringing synonym is lacking. The only possible clue to its previous description is by inference through the footnote quoted above, which states that Loureiro in some undesignated publication described it as a separate and distinct genus.

Some botanists contend that the fact that Raeuschel's footnote states that Loureiro treated these species as genera is sufficient citation of previous publication and that it is not necessary to state where or under what name the plant was treated. Furthermore, they affirm that naturally the mention of Loureiro must be taken as a reference to his most important work, "Flora cochinchinensis."

Why should a seeker after facts be obliged to infer; why should he be required to guess what an obscure note

implies? Certainly this practice does not tend to place the proper stress upon clarity and accuracy and should be discouraged. Such halfway citation as is employed by Raeuschel seems to be far from the spirit of Article 44, and I believe that the partial reference contained in the footnote is too vague to remove Raeuschel's combination from the *nomen* category.

The second, and perhaps more weighty, reason against the use of the combination is the specific epithet *Aristotelia* used by Raeuschel. According to Art. 54 of the International Rules: "When a species is transferred to another genus (or placed under another generic name for the same genus), without change of rank, the specific epithet must be retained or (if it has not been retained) must be re-established, unless one of the following obstacles exists: (1) that the resulting binary name is a later homonym (Art. 61) or a tautonym (Art. 68, 3), (2) that there is available an earlier validly published specific epithet." Following this rule, which is clearly made retroactive, Raeuschel was obligated to use *spiralis* as the specific epithet as no previous *Epidendrum spirale* existed. The fact that a later combination *Spiranthes spiralis* C. Koch invalidates the use of *spiralis* under *Spiranthes* carried no weight at the time of Raeuschel's publication. His combination is not a tautonym and there was available no "earlier validly published specific epithet." The fact that Raeuschel's epithet is illegitimate is made very clear by Art. 60 of the International Rules which states: "A name must be rejected if it is illegitimate (see Art. 2). The publication of an epithet in an illegitimate combination must not be taken into consideration for purposes of priority (see Art. 45). A name is illegitimate in the following cases. (1) If it was superfluous when published, i.e. if there was a valid name (see Art. 16) for the group to which it was applied, with its peculiar circumscription,

position and rank. (2) If it is a binary or ternary name published in contravention of Art. 16, 50, 52 or 54, i.e. if its author did not adopt the earliest legitimate epithet available for the group with its particular circumscription, position and rank." Raeuschel's procedure fails to comply with this Article since it creates a new specific epithet and ignores a valid epithet (*spiralis*). Hence his combination is illegitimate. Consequently Raeuschel's choice of *Aristotelia* as a specific epithet is contrary to Articles 54 and 60 and has no standing.

The fourth binary combination published was *Neottia spiralis* Willdenow Sp. Pl. 4 (1805) 74. The specific epithet is unavailable for two reasons: because the species proper is not the plant under consideration and because of the *Spiranthes spiralis* C. Koch.

The fifth name applied to the species was *Neottia sinensis* Persoon Syn. Pl. 2 (1807) 511. Persoon based his plant on *Aristotelia spiralis* Lour. and gave an adequate description. Professor Ames cited *Neottia sinensis* Pers. as the name-bringing synonym when he published his combination *Spiranthes sinensis* (Pers.) Ames Orch. 2 (1908) 53, and gave full synonymy. In this procedure he fully complied with the International Rules.

In summarizing, the oldest specific epithet *spiralis* is inadmissible because of the combination *Spiranthes spiralis* C. Koch and the next proposed specific epithet *Aristotelia* is considered of no standing for the reasons stated under the discussion of *Epidendrum Aristotelia* Raeuschel. Furthermore, in consequence of the extremely dubious status of *Aristotelia* as a specific epithet, it would be most unwise to displace a combination made strictly in accordance with the International Rules by one that is certainly at variance with the spirit of Article 44 and directly contrary to the fact as stated in Articles 54 and 60.

Consequently, in my judgment, the valid name of the species is **Spiranthes sinensis** (*Pers.*) *Ames*. For a nearly complete bibliography and synonymy of the species, confer *Ames Orch.* 2 (1908) 53 and *Ames in Merrill Enum. Philip. Flow. Pls.* 1 (1924) 268. Since the issue of this last publication, a few new synonyms, which have no bearing on the nomenclatorial status of the species, have been published.